UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,955	08/08/2001	Una Quinlan	3Com-92 (2764WSDUSP)	2012

30349 7590 03/22/2005	EXAMINER
JACKSON & CO., LLP 6114 LA SALLE AVENUE SUITE 507 OAKLAND, CA 94611-2802	BONZO, BRYCE P

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

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<tr><th rowspan="2">Office Action Summary</th><th>Application No.</th><th>Applicant(s)</th><th></th></tr>
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	Office Action Summary	Application No.	Applicant(s)	
		09/924,955	QUINLAN, UNA	
		Examiner	Art Unit	
		Bryce P Bonzo	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17-20* is/are rejected.

7)☒ Claim(s) *15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☒ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FINAL OFFICIAL ACTION

Status of the Claims

Claims 1,2, 10-12 and 17-20 are rejected under 35 USC §102(b).

Claims 3-9, 13 and 14 are rejected under 35 USC §103.

Claim 15 and 16 is objected to while containing allowable subject matter.

Prior Official Actions

The rejections made in the Official Action of September 8th, 2004 are withdrawn, as a direct result of the Applicant's amendments of January 10th, 2005. These rejections under those under 35 USC §102, §103 and §112.

Foreign Priority Claim

The Examiner recognizes Applicant's claim to foreign priority in the Applicant Data sheet under 37 CFR 1.76 with an effective filing date of August 14, 200.

Rejections under 35 USC §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, 10-12 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hurwitz (United States Patent No. 5,884,041). As per the claims:

1.) A method of diagnosing, in a network comprising two devices connectable by a link, the type of failure of the connection between the devices, said method comprising:

connecting the two devices together at least one of the devices including a plurality of registers (page 3, lines 13-18), each register being adapted to store data about one or more types of said failure (column 3, lines 40-65),

running an auto-negotiation sequence (column 3, lines 39-41),

detecting said failure and passing signals relating to that failure to the relevant register(s) (column 5, lines 14-19),

interrogating the or each register (column 4, lines14-19), and

determining the type of said failure from a plurality of types of failure (column 5, lines 21-28).

As per claim 2, Hurwitz discloses:

the step of determining the data in the relevant register(s) (page 5, lines 26-38) and from said data, indicating the type of said failure and/or a proposed course of action (column 5, lines 21-23).

As per claim 10, Hurwitz discloses:

the steps of interrogation and of determining are controlled by a program on a

device in the network (column 2, lines 49-54).

As per claim 11, Hurwitz discloses:

the steps of interrogation and of determining are controlled by a program on one

of said devices (column 2, lines 49-54).

As per claim 12, Hurwitz discloses:

said detection step is carried out by signal detector logic in level B1 of the OSI

protocol stack of one of said devices (page 2, lines 55-68).

As per claim 17, Hurwitz discloses:

said signal detector logic in a data/link layer of the OSI protocol stack of one of

said devices includes an auto-negotiation state machine which deals with the exchange

of one or more pages of information between the two devices, handles link restarts by

the link partner, and reports the link state and hangs (Figure 3A+3B; column 2, lines 55-

68).

As per claim 18, Hurwitz discloses:

at least two device configured to connect together, at least one of the devices including a plurality of registers, each register adapted to store data about one or more types of said failure (column 3, lines 13-18);

wherein the system is configured to

run an auto negotiation sequence (Figure 3A and 3B);

detecting said failure and passing signals relating to that fault to the relevant register(s) (column 4, lines 4-19);

interrogate the or each register (column 4, lines 14-19); and

determine the type of said failure from said plurality of types of failure (column 5, lines 21-28).

As per claim 19, Hurwitz discloses:

wherein the system is further configured to determine the data in the relevant register(s) and from said data, indicate the type of said failure and/or proposed course of action (column 5, lines 21-23).

As per claim 20, Hurwitz discloses:

connecting the two devices together at least one of the devices including a plurality of registers, each register being adapted to store data about one or more types of said failure (column 3, lines 13-18),

running an auto-negotiation sequence (column 3, lines 40-65);

detecting said failure and passing signals relating to that failure to the relevant

register(s) (column 3, lines 39-41),

interrogating the or each register (column 4, lines 14-19), and

determining the type of said failure from a plurality of types of failure (column 5,

lines 21-28).

Rejections under 35 USC §103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-9, 13 and 14are rejected under 35 U.S.C. 103(a) as being unpatentable

over Hurwitz (United States Patent No. 5,884,041).

As per claim 3, Hurwitz does not explicitly disclose:

indicating the type of said failure and/or a proposed course of action on said

visual display unit.   Official Notice it is notoriously well known the provide visual display

units on the network adapters which indicate types of errors.   This is commonly

provided for by a set of small LEDs on the faceplate of the network adapter.   Typically

these error lights are used for used to provide an indication of either a connectivity error

or card malfunction.   These LEDs are provide a user with a mechanism to quickly and

visually inspect the state of the networking elements of the computer system. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the LEDs of the well established prior art into the system of Hurwitz thus creating a user interface to convey the error information to a user, thus increasing the user accessibility of the error handling system of Hurwitz.

As per claim 4, Hurwitz does not explicitly disclose:

a loss of light failure. Hurwitz does explicitly disclose the extensibility of his system to handle more events (failures). Official Notice is given that loss of light is a well known type of fault in computer networks, which disables optical networks completely. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the recording of loss of light failures into the extensible system of Hurwitz, thus providing for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 5, Hurwitz does not disclose:

a bit/word alignment failure. Official Notice is given that a bit/word alignment fault is a well known type of fault in computer networks, which disrupts networks corrupting packetized data. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the recording of bit/word alignment faults into the extensible system of Hurwitz, thus providing for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 6, Hurwitz does not explicitly disclose:

a loss of synchronization. Official Notice is given a loss of synchronization is a well known type of fault in computer networks, which disrupts networks corrupting packetized data. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the recording a loss of synchronization faults into the extensible system of Hurwitz, thus providing for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 7, Hurwitz discloses:

an auto-negotiation hang during base page exchange. Official Notice is given that a auto-negotiation hang fault is a well known type of fault in computer networks, which aborts the establishment of a connection. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the recording of auto-negotiation hang faults into the extensible system of Hurwitz, thus providing for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 8, Hurwitz does not explicitly disclose:

an auto-negotiation hang during next page exchange. Official Notice is given that a auto-negotiation hang fault is a well known type of fault in computer networks, which aborts the establishment of a connection. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the recording of

auto-negotiation hang faults into the extensible system of Hurwitz, thus providing for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 9, Hurwitz does not explicitly disclose:

an auto-negotiation protocol (repeated) restart due to initiation of a "break link". Official Notice is given that a auto-negotiation due to initiation of a "break link " fault is a well known type of fault in computer networks, which aborts the establishment of a connection. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the recording of auto-negotiation due to initiation of a "break link" faults into the extensible system of Hurwitz, thus providing for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 13, Hurwitz does not explicitly disclose:

the link is a fibre optic signal and light is detected by a transceiver and the detector in a data/link layer of the OSI stack checks for an adequate power level on the received at the transceiver. Hurwitz does disclose the use of Ethernet the highly extensible data link protocol which is present in the data/link layer. Hurwitz further provides for extending the number and types of faults handled by the data/link layer. Official Notice is taken that is notoriously well known the check for power levels on fibre optic lines, as this the incorrect power levels on a fibre lines can indicate a damaged fibre line. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the checking of well known faults including loss of power

in a fibre line in to the system faults reporting system of Hurwitz, thereby thus providing

for the alerting of a common error and increasing the versatility of the system of Hurwitz.

As per claim 14, Hurwitz does not explicitly disclose:

in which said signal detector in a data/link layer of the OSI stack of said devices

deals with clock recovery, comma alignment and receive synchronization so as to check

the received signal frequency, encoding integrity and correct alignment of the received

signals.   Hurwitz does disclose the use of Ethernet the highly extensible data link

protocol which is present in the data/link layer.   Hurwitz further provides for extending

the number and types of faults handled by the data/link layer.   Official Notice is taken

that clock recovery, comma alignment and receive synchronization are notoriously well

known to the check for errors in signal frequency, encoding integrity and correct

alignment of digital signals.   Therefore it would have been obvious to one of ordinary

skill in the art at the time of invention to incorporate the checking of well known faults

including loss of power in a fibre line in to the system faults reporting system of Hurwitz,

thereby thus providing for the alerting of a common error and increasing the versatility of

the system of Hurwitz.

Allowable Subject Matter

Claims 15 and 16 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Claims 15 and 16 are deemed as containing allowable subject when viewed as whole incorporating all limitations of the claim, intervening claims (claim 12 and 15 with respect to claim 16), and the base claim (claim 1). Applicant is advised should these claim be presented in independent forms maintaining the currently claimed scope and subject matter, the claims would be deemed in condition for allowance. Applicant is advised, should this guidance be disregarded any alternate form of the claims may jeopardize this indication of allowable subject matter and result in a withdrawing of this indication.

Response to Applicant's Arguments

Contrary the Applicant's repeated proclamations, the claims as present are not in condition for allowance. The claims stand rejected or objected to under the above stated grounds as a result of Applicant's amendment dated January 10th, 2005.

Final Disposition

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P Bonzo whose telephone number is (571)272-3655. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bryce P Bonzo
Examiner
Art Unit 2114